國立臺灣大學技術行銷表

臺大案號: 12A-100202

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產品/技術名稱	以植物生產之豬生殖與呼吸道綜合症口服疫苗及其用途
發明人/單位	詹惠婷、賈敏原、杜宜殷、龐飛、鄭謙仁、黃鵬林/ 國立臺灣大學園藝學系、獸醫學系
產品/技術說明	本案係一種口服用植物性疫苗之生產技術，可提供養殖豬農使用，以提升豬隻對抗疾病之免疫力，為兼具經濟與方便之口服投與免疫的方式，並可解除傳統疫苗在分裝、輸送、貯存、純化上之污染顧慮，對養豬產業產生莫大助益，極具可行性及競爭力。
應用範圍	本發明可應用範圍： 1. 農作物培養、生產。 2. 畜牧業生產。 3. 疾病防制、疫苗生產。
產品/技術優勢	1. 本發明之口服植物疫苗，經實驗證明，其免疫效果佳，甚至比傳統之注射疫苗等方式更為有效。 2. 本發明所提供之口服植物疫苗，由於係以植物為載體，因此，較不會產生過敏反應、且適用者廣泛，相對以往者，如：以雞蛋生產疫苗可能造成過敏反應，且適用對象將相對侷限。 3. 本發明其中之一技術特徵，藉由基因重組技術，提高抗原蛋白表現，以提高口服植物疫苗之有效性。
產品/技術 智財權保護方式	專利申請中

Marketing Abstract of NTU's Invention Disclosure

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Title	The production and application of plant-based oral vaccines against porcine reproductive and respiratory syndrome
Inventor (s)	Hui-Ting Chan, Min-Yuan Chia, Yi-Yin Do, Victor Fei Pang, Chian-Ren Jeng, and Pung-Ling Huang
Brief Description	（≤ 100 words of non-confidential information） This invention is made from oral plant-based vaccine technology, and it can be applied on pigs for boosting the immune responses against porcine reproductive and respiratory syndrome. The advantages of this product include: easy and convenient to apply, no contamination problems from separating, transport, storage, and purification processes like the traditional vaccine does. Therefore, this is a very helpful product in swine feed industries. Thus, the method for making this product is doable, and the product could be very competitive.
Fields of Application	The area for applying this invention: 1. crop industry 2. animal feed industry 3. disease prevention and vaccine production
Advantages	**(when compared to the existing technologies)** 1. The effect on boosting immunity is good and is even better than traditional vaccines that require injections. 2. The vector for this oral vaccine is plant derived; therefore, it will have lower chance for causing allergic response. Hence, it will have a wider range of applying targets. For example, egg -derived vaccine has higher chance for causing allergic response and can apply to a limited amount of targets. 3. One feature of this product is that the DNA recombination technology used in this invention increases the protein antigen expression level thus boost the effect of the vaccine.
IP Right(s)	Pending